

DETAILED ACTION

Receipt is acknowledged of the amendment received on 7-2-09.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 3-6, 17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al. (US 6,731,778) in view of Fujioka (US 7,014,105) and Kakou et al. (US 20030108839).

Re claim 3, Oda et al. teaches an ATM with a bill receptacle and a security camera that captures an image when one accesses the receptacle (FIG. 2). As the hand sensor is inside the receptacle, and trips the camera to capture the image, it is understood that the image would

Art Unit: 2887

therefore include inside the receptacle, namely the hand location, which is inside the receptacle.

The ATM as known in the art can be used for depositing and withdrawals.

Oda et al. teaches a bill receptacle 20, but is silent to it having a shutter. However, the Examiner notes that shutters for such bill receptacles are known in the art for additional security/protection, and therefore is an obvious expedient for such predictable results. As currency is at least deposited from rollers into the bill receptacle, as the bills come from below (as taught by Oda et al.), as per the rollers, it would have been obvious to one of ordinary skill in the art to have a bill holder inside (below) the shutter to securely store bills.

Oda et al. teaches a security camera 17 that captures an interior of the bill receptacle when the hand is detected (shutter would therefore be open). Oda et al. is silent to the camera being positioned in the shutter. However, Oda et al. teaches that the placement of the camera 17 is so that one camera with one frame can capture an image of both the face and hands of the users to reduce complexity/cost, while also reducing image data (col 7, lines 1+ and FIG. 34-35), as opposed to having a separate camera at each body part location that is desired to be captured, as previously done. Therefore, the Examiner notes that it would have been obvious to one of ordinary skill in the art, in light of the teachings of Oda et al. to have a separate camera in the bill receptacle to capture a picture of the hand of a user, as Oda et al. teaches that was previously done, to provide a known solution to a known problem with expected results (increased imaging resolution, closer to the source of the image, backup purposes, and reduced wear since there are discrete image capture elements). Therefore, both separate and single cameras have been documented as known solutions to the problem (see FIG. 34 which teaches separate cameras for hand and face images). The selection of separate/single cameras would have been well within

Art Unit: 2887

the ordinary skill in the art, based on desired number of images/image quality, viewpoint of the images, security concerns, backup image recording, etc. The mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Therefore, merely replacing one camera to capture two body locations, with two, as previously performed, is well within the skill in the art, and alternatively replacing two cameras with one, and has also been taught as within the ordinary skill in the art for its benefits as well.

Though silent to the camera being in the bill receptacle, the Examiner notes that it would have been obvious to one of ordinary skill in the art, to have a camera in the bill receptacle for a desired viewpoint of the image capture, having the image capture device close to the object (hand and/or money) for accuracy/security. Placement within the receptacle is an obvious expedient to have the expected results of being closer to the subject of image capture, having a wider angle range to capture because only 1 subject is to be captured, while also being harder to block and possibly more discrete an installation. As discussed above, placement of the camera is within the ordinary skill in the art, and has been discussed as well known by Oda et al., as discussed above.

Oda et al. teaches a single sensor 46 for detecting insertion (and subsequent image capture) of a hand into the receptacle behind the shutter, analogous to bill removal (as it is in the receptacle). However, the Examiner notes that the mere duplication of the essential working parts of a device involves only routine skill in the art. (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8). Plural sensors might provide more accurate coverage, and provide reliability in that operation may still continue if one sensor is damaged, for example. Therefore the duplicating

Art Unit: 2887

one sensor to include more than one is an obvious expedient for more precise detection coverage, redundancy, etc.

Oda et al. teaches the security camera captures a second image of the interior when the hand insertion is detected (via sensor 46/plurality of sensors as discussed above). This for example, could be for after the fifth step as described by Oda et al. (withdrawal of cash in a withdrawal transaction). Therefore, the Examiner has interpreted that Oda et al. teaches image capturing when the hand is inserted (which is also interpreted as when currency/bills are withdrawn). The Examiner notes that a first activation for image capture of the fifth step can be interpreted as the first image operation, as claimed (detection of the hand of the customer inserted into the bill receptacle). A subsequent image capture by the fifth step can be interpreted as the second image operation as claimed (detecting bills being taken out). The Examiner notes that Oda et al. teaches that the sensor detects hand insertion/bill removal via the sensor(s).

The claims do not recite that the first and second images are of the same customer, or during the same transaction of the same customer. Accordingly, subsequent images taken by the image capture of Oda et al. such as a first image being captured when the system senses a hand in the receptacle and that a second image can be captured in the same way, upon a subsequent transaction by the same or even a different user, as Oda et al. teaches that detection of the hand is interpreted as detection of bills taken out (when during a withdrawal transaction). As discussed above, a plurality of sensors is an obvious expedient to detect hand/bill withdrawal, where it would have been obvious for the sensors to trip when hands are inserted/bills are withdrawn. Therefore, as the claims do not recite that the first image and second image have to be of the same person or eve the same transaction, the Examiner has interpreted that subsequent

Art Unit: 2887

transactions by a same or different user, which result in an image of the hand taken upon attempted withdraw of money from the ATM reads on the claim limitations. As discussed above, having a plurality of sensors as opposed to one, and having those sensors tripped upon detection, is an obvious expedient for further sensor coverage, backup coverage, etc.

Oda et al. teaches means for determining if currency bills remain after a customer has completed operating the terminal and means for performing corrective action (col 28, lines 40+, col 29, lines 25+, and col 30, lines 20+).

Re the newly added claim limitations that the security camera in the receptacle capturing an upper torso of the customer and a hand of the customer inserted into said currency bill receptacle in one continuous image, the Examiner notes that Oda et al. is being relied on for separate cameras at discrete locations, as discussed above, for the expected results as discussed above.

Oda et al teaches (col 7, lines 1+) that the image of the face 14 and the hand 23 are captured in a single image frame of the camera, and as shown in FIG. 4 and FIG. 13+, the image of the face also includes the upper torso. As Oda et al. suggests that placement and the number of cameras is within the ordinary skill in the art, for expected results, the Examiner notes that therefore placing/using a single a camera, as disclosed by Oda et al., in an alternative location (within the bill receptacle), as opposed the camera placement of Oda et al. (FIG. 7, 34, 1) would have been within the ordinary skill in the art for the reasons already discussed above. Further, as discussed above, as the camera of Oda et al. is in a described location is able to obtain a hand, head, and upper torso in a single image frame, based on orientation of the camera/optics/mirrors, the Examiner notes that it would have been well within the ordinary skill in the art that

Art Unit: 2887

alternative placement of the camera, including within the bill receptacle along with associated mirrors/optics could obtain the same effect, because capturing such portions of the user, are important aspects of a user for visual confirmation/security as discussed by Oda et al., and relocating the camera and associated optics from the top of the ATM to the bottom of the ATM (bill receptacle) would still enable the claimed imaging as the rearrangements of parts to obtain the desired result are within the ordinary skill in the art.

However, Oda et al. is silent to the camera in the shutter having an optical range to capture the upper torso and hand in a single image, as Oda et al. teaches the single image frame is provided by the camera at face location with the optics to capture both the upper torso and hand in a single image frame due to the associated optics, and therefore, Oda et al. does not teach that if the camera was disposed in the receptacle that it would capture the upper torso and hand in a single image frame.

Fujioka teaches a shutter 6.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Oda et al. with those of Fujioka for security/protection/safety.

Oda et al./Fujioka are silent to the discrete cameras having a wide angle so as to capture both the hand and upper torso of a customer in one continuous image, wherein each image would be captured from a discrete camera, as discussed above (including one at the receptacle), as discussed above, for the benefits of discrete images, backup in case one camera goes bad or is blocked, possibly higher image quality, reduction in wear by not having shared components, etc.

Art Unit: 2887

Kakou et al. teaches a wide angle camera able to capture the whole environment around an ATM (FIG. 1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Oda et al./Fujioka with those of Kakou et al.

One would have been motivated to do this for increased coverage/security/backup image capture purposes.

Re claim 4 and 9, the Examiner notes that Oda et al. teaches (col 28, lines 40+ and col 29, lines 35+) monitoring for the presence of users in front of the ATM after a transaction. If the users are not present, an alarm is sounded three times. If the users have forgotten to pull out the card, bankbook, banknote, etc., even after the alarm, the CPU cancels the transaction processing and takes in the card, bankbook, banknote, etc. This is broadly interpreted as corrective action being taken, as discussed above. Though there is no time counting recited, the Examiner notes it would have been obvious to one of ordinary skill in the art to include a time counting means to give the user a set amount of time to respond to the alarm, or alternatively, that the sounding of the alarm three times can be interpreted as time counting means as it gives the user time to respond (predetermined time corresponding to three alarms sounds. The Examiner notes that it would have been obvious that when banknotes are dispensed that the shutter is opened, in order for one to withdraw the banknotes. Further, Oda et al. teaches (col 30, lines 20+) that in the case that a card, banknote, bankbook, etc. are detected, a timer is started and images are taken to determine if the user is still present. If the bankbook/banknote/coin, etc. are still present after about 30 seconds, the CPU cancels the transaction and takes in the card, bankbook, banknote, etc. This is interpreted as time counting means for counting the time after the bill receptacle is

Art Unit: 2887

opened by the shutter (which corresponds to completion of the transaction/dispensing of currency), and that the images are captured after a predetermined time period without the sensors in the receptacle having been triggered (the hand sensors for example are not triggered because no hand was inserted to remove the banknotes/card/etc.). Such steps enhance security.

Re claims 5-8 and 10-15, Oda et al. teaches separate security cameras 217 and 218, and as discussed above, a separate camera in the receptacle as well. The Examiner notes that the cameras 217 and 218 capture non-overlapping ranges/independent images, as one captures facial images, the other captures hand images. Further, as discussed above, insertion of a camera into the receptacle to capture hand entry in there would also be interpreted as an independent image/non-overlapping.

Re claim 16, the limitation have been discussed above.

Re claim 17, Oda et al. teaches that if a threshold of time is exceeded, that the bills are taken back into the machine and images are captured. Oda et al. only teaches one threshold for activation of both steps of taking back bills and image capture. However, as Oda et al. teaches that if the users have forgotten to take out the banknotes, an alarm sounds three times, then the machine takes back the card/money, cancelling the transaction, and then captures image data (FIG. 33), Oda et al. teaches the same order/sequence of steps as claimed. The Examiner notes that adding an additional time threshold is mere duplication of a working element, known in the art, such duplication being recognized as within the ordinary skill in the art. Adding an additional threshold is merely applying a known technique to a known device/system/method to yield predictable results, not unexpected results. As such, it is not seen as a product of innovation, but merely a product of ordinary skill in the art. Supplying an additional time

Art Unit: 2887

threshold to accomplish that which has been previously accomplished with a single disclosed time threshold is therefore seen as an obvious expedient/matter of design choice.

Re claims 19-20, the limitations have been discussed above.

Response to Arguments

4. Applicant's arguments filed have been fully considered but are moot in view of the new grounds of rejection.

Oda et al. is relied upon for supporting that discrete cameras/image capture devices can be at the separate body locations, for increased imaging quality, having discrete elements for backup purposes (in case one goes back or is blocked), and to be closer to the subject. Oda et al. teaches a single image frame capturing an upper torso and hand, but the example provided is when the camera is near head level with optics, and not when the camera would be placed at the receptacle.

Oda et al. however was silent to the capture range of the cameras. Kakou et al. teaches ATM camera that captures a wide image of the ATM environment. Therefore, the Examiner notes that Oda et al./Fujioka when combined with Kakou et al. would provide continuous images of the whole user, and would believe to include the upper torso and hand, even when that camera is placed in the receptacle, due to the wide image capture camera arrangement of Kakou et al., and provides the expected benefits as discussed above.

Art Unit: 2887

Additional Remarks

6. The Examiner notes that Kakou et al. is believed to qualify as prior art, because a certified translation of the JP document this application is attempting to claim priority to, has not been provided to the Examiner, in order to perfect the claim for foreign priority.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL WALSH whose telephone number is (571)272-2409. The examiner can normally be reached on M-F 9am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Paik can be reached on 571-272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL WALSH/
Primary Examiner, Art Unit 2887